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G. CLEMENTS & J. M. HOSTLER.
ATTACHMENT FOR VACUUM CLEANING SYSTEMS.

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Fig. 1.

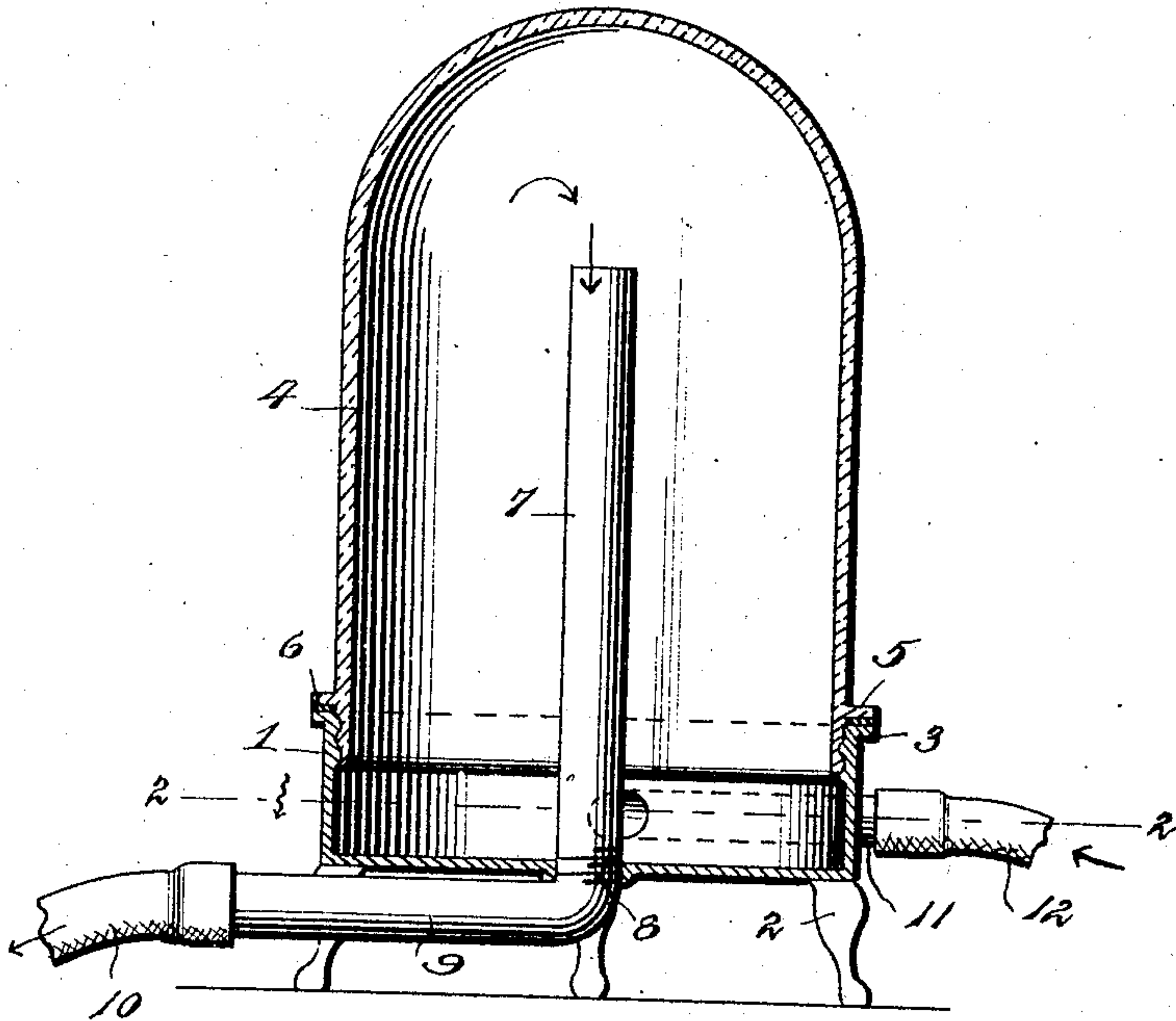
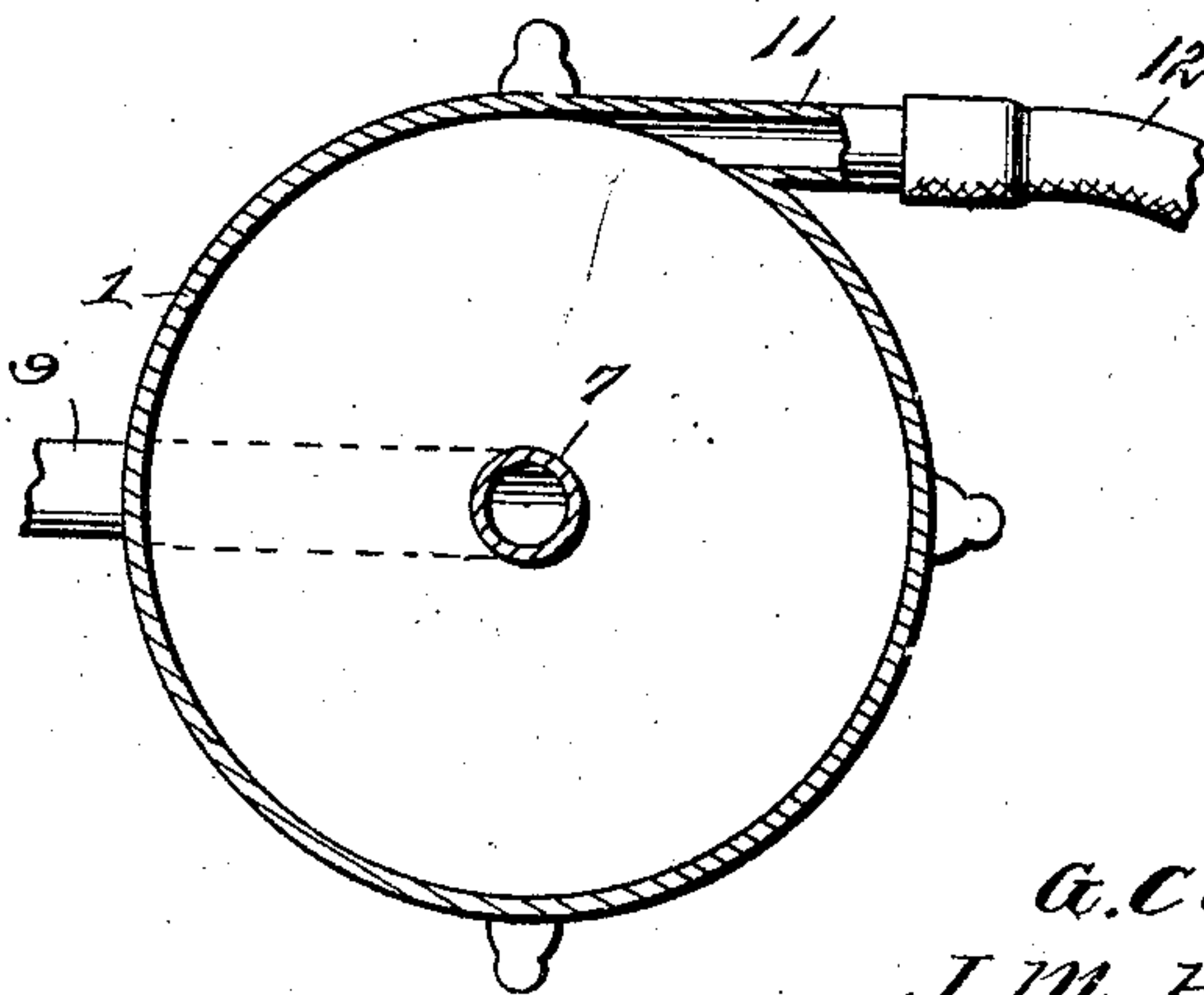


Fig. 2.



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UNITED STATES PATENT OFFICE.

GEORGE CLEMENTS AND JAMES M. HOSTLER, OF CHICAGO, ILLINOIS, AS
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ATTACHMENT FOR VACUUM CLEANING SYSTEMS.

No. 847,729.

Specification of Letters Patent.

Patented March 19, 1907.

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To all whom it may concern:

Be it known that we, GEORGE CLEMENTS and JAMES M. HOSTLER, citizens of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Attachments for Vacuum Cleaning Systems, of which the following is a specification.

This invention relates to improvements in vacuum cleaning systems for removing dust and dirt from houses, cars, and other edifices and apartments, and particularly to an attachment for apparatus of this character adapted to be applied between the suction-nozzle and dust-separator of the system, whereby the dust-laden air which is being discharged through the system may be conveniently viewed, the object of the invention being to provide a simple, compact, and inexpensive device for this purpose which may be readily applied in position and will circulate the dust-laden air in the most efficient manner to enable the same to be observed by the operator and its density or character determined.

In the accompanying drawings, Figure 1 is a central vertical section of the device. Fig. 2 is a horizontal section of the same on the line 2-2 of Fig. 1.

Referring to the drawings, the numeral 1 designates a hollow or chambered base closed at the bottom and open at the top and provided with suitable supporting-legs 2. The upper end of the base is formed with an outwardly-projecting horizontal seat-flange 3 and is internally threaded to receive the externally-threaded lower end of a transparent bell or dome 4, provided with a similar flange 5, a packing ring or gasket 6 being interposed between the said flanges 3 and 5 to form an air and dust proof joint. The base and bell form an observation casing or chamber through which the dust-laden air passes on its circulation through the system, the transparent character of the bell, which is preferably constructed of glass, allowing the air passing therein to be conveniently viewed.

Extending upwardly into the casing or chamber is an outlet-pipe 7, which terminates at its upper end below the curved top of the bell or dome and is threaded at its lower end for connection with the bottom of the base, as indicated at 8, and provided with

a horizontally-extending discharge branch 9, leading beyond the base and adapted for connection with a hose-pipe 10, leading to the separator.

The dust-laden air enters the base 1 through an inlet pipe or nipple 11, adapted for connection with a hose-pipe section 12, leading from the suction-nozzle of the apparatus. This inlet pipe or nipple 12 is disposed at one side of and tangential to the periphery of the base and eccentric to the axis thereof and to the outlet-pipe 7, so that the entering dust-laden air will sweep around the inner wall of the casing or chamber or be given a gyratory motion, thus, in effect, imparting a swirl to the entering current of dust-laden air, thereby keeping the dust and other impurities carried thereby in constant motion, so that they may be readily viewed through the shell 4 and their character and quantity determined. After circulating in the casing the air, with its contained impurities, discharges through the outlet-pipe 7 and passes to the separator of the cleaning apparatus, wherein the impurities are separated from the air and deposited and retained for removal.

It will be apparent that the device provides a simple and inexpensive construction of observation-chamber wherein the amount and character of the dust and other foreign particles removed from an article or apartment may be quickly and conveniently determined without liability of the same escaping while in transit to the separator.

Having thus described the invention, what is claimed as new is—

1. A device of the character described comprising a base, a transparent dome carried by the base, an outlet-pipe opening at its upper end into the top of the dome and leading outwardly through the base, and an inlet arranged tangentially to the base.

2. A device of the character described comprising a chamber, the interior of which is adapted to be viewed from the outside, an outlet leading from said chamber, and an inlet communicating tangentially with the chamber.

3. A device of the character described comprising a vertically-disposed chamber, an outlet arranged in the axial line of the chamber and leading from the upper portion of the same downwardly and outwardly.

through the base thereof, and an inlet communicating tangentially with the base of the chamber.

4. A device of the character described comprising a base, a transparent dome carried by the base, an elbow outlet-pipe having one of its branches opening at its upper end into the top of the dome and leading downward from the base and its other branch ex-

tending outwardly beneath the base, and an inlet arranged tangentially to the base.

In testimony whereof we affix our signatures in presence of two witnesses.

GEORGE CLEMENTS.
JAMES M. HOSTLER.

Witnesses:

EDWARD R. FLESCHE,
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